

CLAIMS

What is claimed is:

1 1. A method for surgically restoring a coronary artery having an atheroma, to
2 more normal structure and function, comprising the steps of:

- 3 a. making an arteriotomy incision over the length of the atheroma;
4 b. extracting atherosclerotic plaque from the atheroma;
5 c. inserting a pre-expanded endocoronary stent into the opened coronary
6 artery; and
7 d. closing the coronary artery over the stent with sutures.

1 2. A method for surgically restoring a coronary artery having an atheroma, to
2 more normal structure and function, comprising the steps of:

- 3 a. making an arteriotomy incision over the length of the coronary artery
4 atheroma;
5 b. spreading the cut edges of the arteriotomy incision;
6 c. extracting the atherosclerotic plaque from the coronary artery, and from
7 any side branch artery;
8 d. inserting a pre-expanded endocoronary stent into the opened coronary
9 artery; and
10 e. closing the coronary artery over the stent with sutures.

1 3. A method for surgically restoring a coronary artery having an atheroma, to
2 more normal structure and function, comprising the steps of:

3 a. making an arteriotomy incision over the length of the coronary artery
4 atheroma;

5 b. spreading the cut edges of the arteriotomy incision;

6 c. separating the plaque from the medial interface of a vessel wall of the
7 coronary artery;

8 d. extracting the atherosclerotic plaque from the coronary artery, and from
9 any side branch artery;

10 e. inserting a pre-expanded endocoronary stent into the opened coronary
11 artery; and

12 f. closing the coronary artery over the stent with sutures.

1 4. A method for surgically restoring a coronary artery having an atheroma, to
2 more normal structure and function, comprising the steps of:

3 a. making an arteriotomy incision over the length of the coronary artery
4 atheroma;

5 b. spreading the cut edges of the arteriotomy incision;

6 c. separating the plaque from the medial interface of a vessel wall of the
7 coronary artery;

8 d. extracting the atherosclerotic plaque from the coronary artery, and from
9 any side branch artery;

10 e. inserting a pre-expanded endocoronary stent into the opened coronary
11 artery;

12 f. closing the coronary artery over the stent with sutures; and

13 g. applying extravascular drug delivery material over the stent implantation
14 site.

1 5. The method of claim 4, wherein the extravascular drug delivery material
2 provides a local controlled release of bioactive factors to inhibit both thrombosis and
3 smooth muscle cell proliferation.

1 6. The method of any of claims 1-5, wherein the pre-expanded endocoronary
2 stent has calibrated diameter, length, and curvature.